

specification does not mention the mixture becoming a "single composite structure."

The applicants respectfully disagree with the Advisory Action and submit that the specification clearly describes the mixture of the particulate carbon and the thermoplastic binder as a "composite powder." Page 2, lines 15 to 16, provide that "[i]n accordance with the present invention, **a loose, dry composite powder** is formed which comprises at least one group of particles of an active ingredient and particles of a thermoplastic binder." Thus, clearly the specification describes that the active ingredient (e.g., the particulate carbon) and thermoplastic binder are mixed together into a composite powder. The specification also refers to the composite powder as a "dry mixture" (pg. 2, lines 7 to 11) and as a "mixture" (pg. 2, lines 24 to 25). The applicants submit that this composite powder is clearly distinguished over the separate layers of adhesive and absorbent as disclosed in U.S. Patent No. 5,462,578 to Korpman (see col. 3, lines 17 to 19).

The specification also discloses that the composite powder is pre-mixed before being applied to the substrate. First, page 2, lines 7 to 11, provides that "[a]ccordingly, it is a primary object of the present invention to provide a method for

continuously coating a relatively fragile web with a dry mixture of at least one particulate active material and a very finely divided particulate thermoplastic binder." Second, page 2, lines 24 to 25, provide that "[t]he mixture of active and binder powders is applied to the surface of a moving web by means of a knurled roller." Thus, the specification describes that the active material (e.g., the particulate carbon) and the thermoplastic binder are mixed together before being coated onto the underlying web. The applicants submit that mixing the particulate carbon and the particles of a thermoplastic binder results in a clearly different structure, compared to that of the Korpman patent.

As provided in claims 18 and 24, the thermoplastic binder coalesces the particulate carbon or particles of a polymer liquid absorbent and adheres the particulate carbon or particles of a polymer liquid absorbent to the substrate. This feature is fully supported by the specification. In particular, page 3, lines 13 to 14, provides that "[t]he critical features of this invention, however, reside in the thermoplastic binder which is employed to **coalesce the active particles** and adhere them to the underlying web." The applicants respectfully submit that coalescing the individual active ingredients is distinguished from the Korpman patent, which does not bind the absorbent

particles to one another. Rather, the Korpman patent merely discloses adhering the absorbent particles to the substrate by means of an adhesive layer. Thus, the present invention discloses a composite structure, while the Korpman patent only discloses a layered structure.

In light of the foregoing, the applicants respectfully submit that claims 18, 19, 24, and 25 as amended above (1) place the present application in better form for allowance, (2) do not raise new issues, in that the amendments specifically address the issues set forth in both the Office Action dated August 2, 1999 and the Advisory Action dated November 18, 1999, and (3) do not raise the issue of new matter since, as stated above, the specification as originally filed fully discloses the invention as claimed.

Therefore, the applicants respectfully request that the amendments to claims 18, 19, 24, and 25 be entered.

Claims 18 and 24 have been rejected under 35 U.S.C. 112, first paragraph. The Office Action states that the limitation of "a mixture of particulate carbon (or polymer liquid absorbent) and particles of a thermoplastic binder. . ." is not anywhere disclosed in the original specification.

As stated above, a mixture of particulate carbon (or polymer liquid absorbent) and particles of a thermoplastic binder is clearly disclosed in the original specification (see pg. 2, lines 7 to 11, *see also* pg. 2, lines 24 to 25). In light of the foregoing, the applicants respectfully submit that the \$112 rejections are now moot and should be withdrawn.

Claims 18, 19, 24, and 25 have been rejected under 35 U.S.C. 102(b) as being anticipated by the Korpman patent (U.S. Patent No. 5,462,538). However, as stated in the Office Action, the Korpman patent does not teach mixing together the particulate carbon and the pressure sensitive adhesive before the particulate carbon and adhesive are applied to the surface of the substrate.

Claims 18, 19, 24 and 25 provide, in relevant part, for a composite powder consisting of particulate carbon or particles of a polymer liquid absorbent and particles of a thermoplastic binder. This composite powder is formed before it is deposited on a substrate. Thus, claims 18, 19, 24, and 25 are not disclosed by the Korpman patent, which discloses separate layers of adhesive and absorbent. Therefore, the applicants

respectfully submit that the §102(b) rejection be reconsidered and withdrawn.

Claims 18, 19, 24, and 25 have also been rejected under 35 U.S.C. 103(a) as being obvious over the Korpman patent. The Office Action states that the Korpman patent teaches spraying a molten pressure sensitive adhesive microfibers and thermoplastic polymer microfibers onto an absorbent article. The Office Action also states that the fact that the particulate carbon is mixed with the pressure sensitive adhesive before the pressure sensitive adhesive is spray coated onto the facing material would not change the functionality of the product, absent evidence that process yields a different product. Furthermore, the Office Action states that it would have been obvious to combine the particulate carbon and the pressure sensitive adhesive because such a combination eliminates an application step and, therefore, it would be a process expedient. The Office Action seems to imply that pre-mixing the particulate carbon and the pressure sensitive adhesive merely eliminates the undesirable step of separately applying a liquid absorbent after application of an adhesive and results in the same product provided by the Korpman patent.

The applicants respectfully disagree with the Office Action and submit that the Korpman patent does not suggest the present invention. Claims 19 and 24 provides for a composite structure comprising a composite powder deposited on a first substrate. The composite powder consists of particulate carbon or particles of a polymer liquid absorbent and particles of a thermoplastic binder, wherein the thermoplastic binder coalesces the particulate carbon or particles of a polymer liquid absorbent and adheres the particulate carbon or particles of a polymer liquid absorbent to the substrate.

In contrast to the composite structure provided by claim 26, the Korpman patent provides for a material coated with adhesive microfibers that are, themselves, further coated with a liquid absorbent (see col. 3, lines 15 to 19). Examples 1 through 7 of the Korpman patent disclose that the pressure-sensitive adhesives and plastic polymers are applied in hot melt form using a spray fiberization method. This process clearly results in the material being coated with a discrete layer of adhesive material over which is applied a single layer of adsorbent materials. Thus, the adsorbent materials are not coalesced together, rather they are adhered only to the adhesive material. Merely adhering absorbent materials to the adhesive material does not guarantee complete coverage of the underlying

substrate or the close proximity of the absorbent materials to each other. In other words, coalescing the absorbent materials results in a more effective and efficient composite structure.

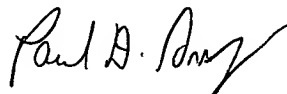
Furthermore, mixing the particulate carbon or particles of a polymer liquid absorbent and the pressure sensitive adhesive into a composite powder is more than merely a process expedient that eliminates an application step. In fact, the mixed composite powder fuses such that individual particles of carbon or polymer are coalesced with each other and adhered to the substrate by individual particles of thermoplastic binder. To the contrary, merely co-spraying a combination of the melted adhesive and the liquid adsorbent that are disclosed in the Korpman patent does not result in a mixed and fused composite powder. The problem of thin and uneven coverage of the substrate, as discussed above, is not solved by co-spraying. However, the applicants submit that this problem is solved by a mixed and fused composite powder that coalesces the individual particles of carbon or polymer.

The applicants also respectfully submit that claims 19 and 25 are not obvious over the Korpman patent in light of the conclusion that claims 18 and 24 are not obvious over the Korpman patent.

Given the foregoing, the applicants respectfully submit that the §103(a) rejection be reconsidered and withdrawn.

Thus, the applicants respectfully request favorable consideration and that claims 18, 19, 24, and 25 be passed to allowance.

Respectfully submitted,



Date: January 3, 2000

Paul D. Greeley, Esq.
Reg. No. 31,019
Ohlandt, Greeley, Ruggiero
& Perle, L.L.P.
One Landmark Square, 9th Floor
Stamford, CT 06901-2682
tel. (203) 327-4500
fax. (203) 327-6401